

Chapter I

THE CONCEPT

The earliest settlers in America quickly recognized the advantages afforded by inland waterways. As vital arteries supporting transportation, the streams, rivers, bayous, lakes, and other natural water routes facilitated primitive settlement and eventual urban development. They also promoted a type of water transportation different from that conducted at deep-water ports. Their shallow, sheltered waters provided safe passage to barges and other light-draft vessels that could not withstand the battering of the "open seas; they could be depended upon to link the scattered coastal communities and to penetrate the interior of the country, creating a commercial connection between geographically isolated points.

A PLAN FOR NATIONAL TRANSPORTATION

The vision of a vast network of roads and protected waterways captured the imaginations of influential men. Thomas Jefferson and other leaders of the young republic proposed a national system of internal improvements. Responding to the growing desire for improved inland transportation, the Senate ordered a report on the subject. In 1808, Secretary of the Treasury Albert Gallatin submitted his classic report on "Public Roads and Canals." This report formulated a plan for federal promotion of inland transportation and established the principles that have guided the government's role in water-related public works since that time. Gallatin advocated considerable federal assistance, arguing that private capital was not being used to develop essential roads and canals. Many areas through which potential avenues of traffic would run were settled only sparsely, if at all, and more attractive investments diverted the precious supply of available capital. Gallatin maintained the federal government could overcome these obstacles by participating in construction of extensive projects that would, in turn, stimulate private enterprise to carry on further improvements.¹

The prototype for many future plans of internal improvement, Gallatin's report called for canals along the Atlantic Coast, canals linking the Atlantic Ocean with the western rivers and the Great Lakes, and interior roads and canals to provide strategic local connections. The elaborate plan further proposed that the government conduct engineering surveys to establish the need and to plan for improvements beneficial to the national interest. Gallatin based his justification on the military, political, and commercial needs of the growing nation.²

Although the War of 1812 forestalled any immediate implementation of the Gallatin plan, it emphasized the pressing need for an adequate network of coastal defenses and underscored the military value of

improved inland communication. Postwar efforts to improve military logistics directly involved the War Department and its Army Engineers in transportation planning. A board, including one naval officer and Corps of Engineers officers Brigadier General Simon Bernard and Lieutenant Colonel (later Brigadier General) Joseph Totten, undertook a study of national defense needs in 1816. These officers concluded that the national defense depended on four elements: a strong navy, adequate coastal fortifications, a regular army and organized militia, and improved internal transportation. Agreeing with the board's recommendations, Secretary of War John C. Calhoun used the Army Engineers to investigate problems of inland river navigation. The Engineer studies revealed urgent military and commercial needs for waterway improvements. In 1819, Calhoun published his "Report on Roads and Canals," reiterating Gallatin's plan and adding to it. Familiar with the work of the Army Engineer officers in fortification construction and navigation studies, he proposed that they be used extensively in surveying, planning, and, when necessary, supervising the construction of internal improvements.³

Pointing out the mutual benefits to military and commercial objectives, Calhoun included navigable rivers in the broad scope of his program. He recognized the desirability of developing a chain of canals along the Atlantic seaboard, but he also perceived that no state or group of states would have sufficient interest in such a canal to complete it.⁴ In this astute projection, he anticipated a political problem that later would impede the development of an intracoastal waterway along the Gulf Coast.

Certain features of Calhoun's proposal formed the basis for federal policy contained in the General Survey Act of 1824. This legislation formalized the use of Army Engineers in civil projects meriting national support. Thus began the continuous association between the Corps of Engineers and the waterways, leading to the Army Engineers' historic responsibility to maintain the navigable waters of the United States. President James Monroe appointed a Board of Engineers for Internal Improvements to administer the act. Essentially, the General Survey Act represented the first step in a prolonged struggle to fashion a national policy for waterway development.⁵

The more heavily populated East Coast presented the greatest demand for immediate canal improvements, but men of vision pursued their grandiose schemes to create avenues of transportation reaching far across the country. Some entertained dreams of a canal that would tie the Atlantic Ocean to the Gulf of Mexico, eliminating the need for vessels to navigate the cumbersome and often dangerous course around the Florida peninsula. Two years after enactment of the General Survey Act, the President called for an examination to determine the most eligible route for such a canal. The Army Engineers responsible for this assignment pointed out the formidable difficulties and expense involved in a trans-Florida canal, but they viewed more favorably the possibilities for a protected passage to permit inland navigation along the Gulf Coast between St. Marks, Florida and Lake

Pontchartrain, Louisiana.⁶ This last optimistic projection laid the groundwork for the eventual creation of the canal we know today as the Gulf Intracoastal Waterway (GIWW).

POLITICAL PROCRASTINATION AND RAILWAY COMPETITION

Even though in 1829 the Engineer officers described much of the route actually followed by the eastern portion of the future GIWW, almost a century would elapse before Congress authorized its construction. For many years, the intracoastal waterway from Florida to the Mississippi River existed in conceptual form only while Congress dealt with more urgent domestic and military concerns. When the Civil War ended, the Corps of Engineers decentralized, establishing regional "Engineer Offices" from which the Army officers, assisted by government-employed civilian engineers, initiated a far-flung program of local river and harbor improvements. After an ambitious beginning, the fact became painfully clear that even the vast resources of the federal government could be spread too thinly. Political pressures eventually resulted in more selective appropriations, concentrating larger sums on fewer projects.⁷

No clear-cut federal policy dictated development of a national system of navigable waterways--or, for that matter, of transportation in general. The bitter rivalry that arose between the railroads and the waterway users further complicated the problem. Railroad growth accelerated at an enormous rate between 1850 and 1910. Workers laid more miles (70,335) of track between 1880 and 1890 than during any other decade in the nation's history.

Seeking to entice commerce away from the waterways, the railroads successfully adopted various techniques to drive competing water carriers out of business. Rate-cutting practices became prevalent soon after the Civil War. In locations where water transportation was available, the railroads would reduce their freight rates to artificially low levels, even hauling water-competitive commerce at a loss if necessary. Another technique they employed was to purchase competing water lines and then discourage their use by raising the water rates. By gaining control of waterfront facilities, the railroads hampered freight delivery to and from water carriers. Also, they often refused to transship goods that might be moved in combination by rail and water.⁹

The competitive practices of the railroads worked to the detriment of the waterway operators, causing a marked decline in river and canal transportation toward the end of the nineteenth century. The economic advantage of water transportation resided in the movement of low-grade, heavy and bulky staples such as lumber, cotton, and coal, for which low freight rates were more important than speed of delivery.¹⁰ By offering equally low or lower rates for these commodities, the railroads undermined the ability of the water carriers to compete and brought ruin to many boat lines. As commerce abandoned the waterways for the railroads, many channels fell into disrepair and were not maintained by the private companies for which they had ceased to be profitable.

INLAND WATERWAYS GRADUALLY GAIN SUPPORT

Interest in the waterways revived late in the 1800s, as the people of the Mississippi Valley complained the railroads did not have sufficient capability to meet their needs. Because the Interstate Commerce Act passed in 1887 had failed to curb effectively the discriminatory practices of the railroads, railroad regulation remained a compelling issue. Renewed interest in waterway transportation assumed the form of demand for river and canal improvements to be financed with public funds. Frustrated commercial interests banded together, formed numerous organizations and associations, and petitioned for a comprehensive plan to improve and control the national river systems.¹¹

A champion for the waterways emerged. According to one, not disinterested, contemporary, "Theodore Roosevelt was as a Moses leading the people from an 'oppressed and degraded state of commerce? in which they found themselves beleaguered, as did their forebears a century and a quarter before."¹² During the first decade of the new century, President Roosevelt vigorously addressed the issue of national transportation. His leadership and efforts on behalf of the waterways bore fruit. In 1909, Congress authorized sweeping surveys for a host of waterways improvements including a system of connected intracoastal waterways stretching from Boston to Brownsville.¹³ Finally, Congress had bestowed official recognition upon the concept of a national system of inland waterways; however, this acknowledgment was not tantamount to actual adoption of the desired project. More years, more money, more effort, and more people would be required to achieve a continuous navigable passageway along the shores of the Gulf coast .

The most successful and enduring effort came from an unexpected quarter. In 1905, a group of businessmen in Victoria, Texas had organized the Interstate Inland Waterway League, pledged to the goal of a continuous system that would tie together the 18,000 miles of navigable waters extending from the Great Lakes, through the Mississippi Valley, and along the Louisiana and Texas coastlines. This league clamored for a channel to match navigational features on the Mississippi and Ohio river systems. In 1912, supporters of the project claimed that coal from the mining regions of Pennsylvania could be brought by water to Texas at half the price being paid for the fuel in Texas and Louisiana, saving \$2 million annually on coal shipments alone.¹⁴

The league later changed its name to the "Intracoastal Canal Association of Louisiana and Texas" and, finally, to the "Gulf Intracoastal Canal Association" as it is known today. No history of the GIWW would be complete without presenting the crucial role played by the canal association. From camping on the doorstep of the nation's Capitol to prodding sluggish county governments, encouraging the donation of necessary rights-of-way and the rebuilding of bridges, this organization has served as the leading proponent of the

GIWW.¹⁵ To the present day, this unique association remains exclusively identified with the waterway. Without the association, there might never have been a canal.

Two pieces of legislation probably represent the canal association's greatest triumph. The Rivers and Harbors Act in 1925 authorized for the first time a continuous Louisiana-Texas waterway from New Orleans to Galveston. Two years later, Congress authorized extension of this canal west to Corpus Christi. The Louisiana-Texas Intracoastal Waterway proved an immediate success. Eventual extension of the association's scope to include the entire Gulf Coast became inevitable as eastern interests sought support to develop the portion of the canal between the Mississippi River and Florida. The association's unyielding efforts further supported passage of legislation in 1942 authorizing an enlarged channel extending from Florida west to the vicinity of the Mexican border.¹⁶

TO PROMOTE THE NATIONAL DEFENSE

The impact of war has facilitated transformation of the Gulf Intracoastal Waterway from concept to reality. During periods when the nation was engaged in military conflicts, movement of personnel, troops, and defense materials increased greatly. Heavy transportation demands imposed by wartime conditions served to emphasize the urgent need for protected inland transportation and called attention to existing inadequacies. The correspondence between major military encounters and subsequent transportation-related legislation must be noted: the General Survey Act followed the War of 1812; extensive railroad surveys followed the war with Mexico; a rash of river and harbor improvements followed the Civil War; the progressive policies of the Roosevelt era, culminating in the surveys of 1909, followed the Spanish-American War; authorization for the intracoastal canal in Louisiana and Texas followed World War I; and authorization to enlarge and complete an intracoastal waterway from Apalachee Bay, Florida to Brownsville, Texas followed the outbreak of World War II.

During World War II, the presence of German submarines in the waters skirting the eastern and Gulf shores of the United States demonstrated most dramatically the extreme vulnerability of coastwise traffic. The enemy vessels sunk more than two dozen merchant ships in the Gulf of Mexico, severely disrupting commerce. Towboats, tugs, and barges, pressed into service on the protected inland waterways, moved tremendous quantities of strategic commodities essential to wartime production.¹⁷

Heavy movement of petroleum products, more than 1 million barrels a day, began early in 1943 and continued throughout the war. The barges coordinated with pipelines, tank cars, and tank trucks to deliver a total of 1,731,030,485 barrels of petroleum and petroleum products during the war. Assessing the contribution of the inland waterways to the war effort, the Office of Defense Transportation said, "If our waterways rendered no service beyond that of transporting petroleum and its products during the war, they would have amply justified their improved existence.

Vital war-related industries located production facilities along the GIWW and its tributaries. This waterside industrial development offered innumerable benefits to the adjacent communities. The experience of Houston provides an outstanding case in point. The spectacular rise of the petrochemical industry along the banks of the Houston Ship Channel not only supported the war effort but also contributed significantly to that city's tremendous postwar boom. The advantages of low-cost barge service for bulk-loading commodities attracted many manufacturers to the Gulf Coast area, enabling them to move large quantities of raw materials from one stage of production to the next along the intracoastal canal.

The Gulf Intracoastal Waterway is sometimes referred to as the 1,000-mile miracle. Although its creation may not have been truly miraculous, it certainly was prolonged and laborious, involving an enormous region and a multitude of scattered communities. Development of the waterway progressed in a fragmentary, piecemeal fashion, subject to the political forces of the times and the whims of Congress. This pattern of segmented growth does not lend itself to presentation as a single, continuous story, dictating instead organization by geographical units. Therefore, chapters in this history correspond to the major segments of the inland canal along the Gulf and to the respective Army Engineer installations responsible for them.

Today, chemical plants, glass plants, paper mills, oil refineries, steel-fabricating plants, power plants, shipyards, grain elevators, and fertilizer and synthetic rubber plants are among the industrial facilities lining the waterway. Picturesque fishing vessels, sleek pleasure boats, and graceful sailboats dot the channel, joining the bustling stream of barge traffic. Perhaps J. F. Ellison, secretary of the National Rivers and Harbors Congress, entertained such a vision seventy years ago when he wrote:

The New South, not the old, self-satisfied South of pleasant memories and tender recollections, that lay ever half asleep basking in her own sunshine, content to raise the cotton supply of the world and to allow her wonderful natural resources of mine and forest to remain undisturbed, but the New South, awakening as a young giant, strong and vibrant, throwing off the fetters of commercial indifference, is at last . . . being aroused, to the fact that the beneficent hand of the Creator has given to her more natural advantages than He has vouchsafed to any other part of this great Union.¹⁹